

Notice of Allowability

Application No.

09/545,334

Examiner

Stuart F. Baum

Applicant(s)

HABBen ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 12/16/2004.
2. ☒ The allowed claim(s) is/are 1-4, 8, 17, 21, 30, 33, 42-47, 64-65 (renumbered 1-17).
3. ☒ The drawings filed on 07 April 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☒ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 0205.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Stuart F. Baum

EXAMINER'S AMENDMENT

RCE Acknowledgment

1. The request filed on 12/16/2004 for a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114, based on parent Application No. 09/545,334 is acceptable and a RCE has been established. An action on the RCE follows.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Karen Varley on 2/25/2005 and Debra L. Blair on 3/2/2005.

Oath and Declaration

4. Applicant is now required to submit a substitute declaration or oath to correct the deficiencies set forth; Applicants claimed benefit to provisional application 60/129,844 under 35USC 119(e) needs to be specified in the oath or declaration. The substitute oath or declaration must be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability" (PTO-37). Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136. Failure to timely file the substitute declaration (or oath) will result in **ABANDONMENT** of the application. The transmittal letter accompanying the declaration (or oath) should indicate the date of the "Notice of Allowance" (PTOL-85) and the application number in the upper right hand corner.

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5. IN THE SPECIFICATION:

The paragraph starting on page 17, line 33, has been replaced with:

--The introduced restriction sites are bolded. The portion of the primer that binds to the template extends from nucleotides 22 and 19 to the 3' terminus, respectively. A BamHI site "ggatcc" (bolded) and a Kozak consensus sequence were introduced before the start codon and a HpaI site "gttaac" (also bolded) was introduced after the stop. [Following is a schematic showing how the primers attach to the published Sequence.

BamHI

5'caucaucaucaug**gatcc**accaatggatctacgtctaattttcggtccaac

aatggatctacgtctaattttcggtccaactgacagg

aaagacatcgactgcgatagctcttgcccagcagactggcctcccagtcctctcgctcgatcgcgccaatgctgtcctcaactatcaaccg
gaagcgggcgaccaacagtggaagaactgaaaggaacgactcgtctgtaccttgatgatcgcccttggttaaagggtatcattacagccaa
gcaagctcatgaacggctcattgcggaggtgcacaatcacgaggccaaaggcgggcttattcttgaggaggatctatctcgttgctcaggt
gcatggcgcaaaagtcgttattggaacgcggattttcgttggcatattattcgcaacgagttagcagacgaggagagcttcatgagcgtggcc
aagaccagagttaagcagatgttacgcccctctgcaggtctttctattatccaagagttggttcaactttggaggaggcctcggtgaggccc
atactggaagggatcgatggatatcgatatgcctgtctattgtaccagaaccagatcacgcccgatatgctattgcagctcgacgcagat
atggagaataaattgattcacgggtatcgctcaggagtttctaataccatgcgctcgacaggaacagaaattcccttgggtgggcgcgacagct
gtcgaagcgttgaaggaccaccatttcgaatgtga

3'cctgggtgtaaagcttacactcattgaucaucaucauc

HpaI]--

6. IN THE CLAIMS:

Claims 9, 11, 22, 24, 34, 36, 48, 50-52, 54-56, 58-59 have been canceled.

--1. (Currently amended) A method for producing transgenic plants comprising:
transforming plant host cells with a genetic construct, said construct comprising a [tissue-preferred, tissue-specific, or temporally-regulated] seed preferred or seed specific promoter driving expression in developing seeds [or related maternal tissue], wherein said promoter is operably linked to an isolated polynucleotide encoding an isopentenyl transferase, wherein the isolated polynucleotide is expressed in the transformed plant [cell] cells; and regenerating [and recovering said] transgenic plants from said transformed plant cells, wherein said plants exhibit one or more traits selected from the group consisting of [improved] increased seed size, [decreased seed abortion and increased seed set during unfavorable environmental conditions,] and increased seed number relative to a [control plant] plant not transformed with said construct.

2. (Previously presented) The method according to Claim 1 wherein [the transformation is carried out] transforming is by a process selected from the group consisting of electroporation, PEG poration, particle bombardment, silicon fiber delivery, microinjection, and Agrobacterium-mediated transformation.--

--17. (Currently amended) A transgenic plant comprising a genetic construct stably integrated into the genome thereof, said construct comprising a [tissue-preferred, tissue-specific, or temporally-regulated] seed preferred or seed specific promoter driving expression in

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developing seeds [and/or related maternal tissue], wherein said promoter is operably linked to an isolated polynucleotide encoding an isopentenyl transferase, and wherein said plant exhibits one or more traits selected from the group consisting of [improved] increased seed size, [decreased seed abortion and increased seed set during unfavorable environmental conditions,] and increased seed number relative to a [control plant] plant not transformed with said construct.--

--30. (Currently amended) An isolated recombinant DNA molecule comprising a [promoter directing temporal and/or spatial gene expression in plant seeds and/or related maternal tissue] seed preferred or seed specific promoter, wherein said promoter is operably linked to an isolated polynucleotide encoding an isopentenyl transferase.--

--43. (Currently amended) A method for [improving stress tolerance and yield stability] increasing seed number and/or seed size [in plants] comprising stably transforming plant host cells with a genetic construct, said construct comprising a [tissue-preferred, tissue-specific, or temporally-regulated promoter] seed preferred or seed specific promoter driving expression in developing seeds [and/or related maternal tissue], wherein said promoter is operably linked to an isolated polynucleotide encoding an isopentenyl transferase, and regenerating [and recovering] plants from said cells, wherein the introduced DNA is expressed in seed of the transformed plants and said [regenerated] plants exhibit [improved stress tolerance or yield stability] an increase in seed number and/or seed size compared to plants not transformed with said construct.--

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44. (Currently amended) The method according to claim 43 wherein said [preferential] seed expression is initiated within the range of from about 14 days prior to pollination to about 25 days after pollination.

45. (Currently amended) The method according to Claim 43 wherein said [preferential] seed expression is initiated within the range of from about 14 days prior to about 21 days after pollination.

46. (Currently amended) The method according to Claim 43 wherein said [preferential] seed expression is initiated within the range of from about 14 days prior to about 12 days after pollination.

47. (Currently amended) The method according to Claim 43 wherein said [preferential] seed expression is initiated within the range of from about 14 days prior to pollination to zero days after pollination.--

--64. (Currently amended) A method for producing transgenic plants [wherein] having increased cytokinin content[,] in developing seeds [and/or related maternal tissue, is increased relative to a control plant] compared to an untransformed plant comprising: transforming plant host cells with a genetic construct, said construct comprising a [tissue-preferred, tissue-specific, or temporally-regulated] seed preferred or seed specific promoter driving expression in developing seeds [or related maternal tissue], wherein said promoter is operably linked to an isolated polynucleotide encoding an isopentenyl transferase, and wherein the isolated polynucleotide is expressed in the transformed plant cells; regenerating plants from said transformed cells; and [recovering] selecting [said] plants with increased cytokinin content in

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seeds, compared to seeds of a plant not transformed with said construct by selecting [viviparous seed on regenerated] plants with viviparous seed.

65. (Currently amended) A method for producing transgenic plants wherein cytokinin content, in developing seeds [and/or related maternal tissue,] is increased relative to [a control] a non-transgenic plant comprising: transforming plant host cells with a genetic construct, said construct comprising [a tissue-preferred, tissue-specific, or temporally-regulated] a seed preferred or seed specific promoter driving expression in developing seeds [or related maternal tissue,] operably linked to an isolated polynucleotide encoding an isopentenyl transferase, wherein said construct further comprises an isolated polynucleotide encoding a selectable marker, and wherein the isolated polynucleotides are expressed in the transformed plant cells; regenerating plants from said transformed cells; and [recovering] selecting [said] plants with increased cytokinin content in seeds by screening for the presence of the selectable marker.--

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on 571-272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Stuart F. Baum Ph.D.
Patent Examiner
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March 7, 2005

A handwritten signature in black ink, appearing to read "Amy Nelson", with a long horizontal flourish extending to the right.

AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600